

### REMARKS

Applicant respectfully requests reconsideration. Claims 1-45 were previously pending in this application. Independent claims 2 and 35 and dependent claims 32-34 have been amended. Claims 46 and 47 have been added. No new matter has been added. As a result, claims 1-47 are pending for examination with claims 1, 2, 31 and 35 being independent claims.

#### Rejection of Claims 1 under 35 U.S.C. 102(b)

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by *Tetrahedron. Letters* **2000**, Vol. 41(41) and *J. Am. Chem. Soc.* **1998**, Vol. 120(46) (collectively, “the Yang references”); or, *J. Chem. Soc., Chem. Commun.* **1990** and *Liquid Crystals* **1993**, Vol. 14(5), *J. Org. Chem.* **1993**, Vol. 58(9) (collectively, “the Norvez references”).

Both the Yang references and the Norvez references fail to teach or suggest a composition comprising a *ladder* polymer or oligomer that comprises an iptycene as recited in independent claim 1. (Emphasis added). In the present application, a “ladder” polymer is defined as a polymer having a backbone that can only be severed by breaking two bonds (See page 15, lines 11-12). Moreover, Applicant sees no suggestion or motivation in the Yang references, the Norvez references, or elsewhere in the prior art to modify the teachings of the Yang references or the Norvez references to obtain a composition comprising a *ladder* polymer or oligomer that comprises an iptycene.

Because each claim limitation is not taught or suggested by the Yang references and the Norvez references and there is no motivation to modify the teachings of these references to obtain the recited composition, independent claim 1 is patentable over these references.

Accordingly, withdrawal of the rejection of claim 1 on this ground is respectfully requested.

#### Rejection of Claims 2-34 under 35 U.S.C. 102(b)/ 35 U.S.C. 103(a)

Claims 2-34 are rejected under 35 U.S.C. §102(b) as being anticipated, or in the alternative under 35 U.S.C. §103(a) as being obvious over, the Yang references and the Norvez references.

Claims 11-14, 16, and 23-28 depend from claim 1, which, as noted above, is patentable over the Yang and Norvez references. Therefore, these claims are also patentable over the Yang and Norvez references for at least these reasons.

The Yang references and Norvez references fail to teach or suggest a composition that comprises iptycene and has a dielectric constant of less than 3.0 as recited in the amended independent claim 2. Moreover, Applicant sees no suggestion or motivation in these cited references, or elsewhere in the prior art, to modify the teachings of these references to obtain a composition comprising iptycene and has a dielectric constant of less than 3.0.

Because each claim limitation is not taught or suggested by the Yang references and the Norvez references and there is no motivation to modify the teachings of these references to obtain the recited composition, independent claim 2 is patentable over these references. Claims 3-10, 15, 17-22 and 29 depend from claim 2 and are, thus, patentable over these references for at least this reason.

Neither the Yang references nor the Norvez references disclose a composition as recited in independent claim 31 which has a first, porous, shape-persistent, polymeric component and a second, polymeric component which forms an interpenetrating network by permeating the pores of the first polymeric component. Furthermore, Applicant sees no suggestion or motivation in these cited references, or elsewhere in the prior art, to modify the teachings of the references to obtain this recited composition .

Because each claim limitation is not taught or suggested by the Yang references and the Norvez references and there is no motivation to modify the teachings of these references to obtain the recited composition, independent claim 31 is patentable over these references. Claims 32-34 depend from claim 31 and are, thus, patentable over these references for at least this reason.

Accordingly, withdrawal of the claim rejections on this ground is respectfully requested.

Rejection of Claims 35-45 under 35 U.S.C. 103(a)

Claims 35-45 are rejected under 35 U.S.C. §103(a) as being obvious over the Yang references and the Norvez references.

Neither the Yang references nor the Norvez references teach or suggest a device that comprises both a chromophore and a shape-persistent molecule having at least 20% free volume as recited in the amended independent claim 35. Moreover, Applicant sees no suggestion or motivation in these cited references, or elsewhere in the prior art, to modify the teachings of these references to obtain a device that includes the afore-mentioned claim limitations.

Because each claim limitation is not taught or suggested by the Yang references and the Novas references and there is no motivation to modify the teachings of these references to obtain the recited device, independent claim 35 is patentable over these references. Claims 36-45 depend from claim 35 and are, therefore, also patentable over the Yang and Norvez references for at least this reason. Accordingly, withdrawal of the claim rejections on this ground is respectfully requested.

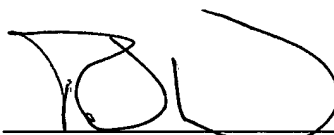
**CONCLUSION**

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

By:



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